



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/552,086	12/23/2005	Reiner Buettner	4197-125	4140
23448 7590 03/02/2009 INTELLECTUAL PROPERTY / TECHNOLOGY LAW PO BOX 14329 RESEARCH TRIANGLE PARK, NC 27709			EXAMINER CALANDRA, ANTHONY J	
			ART UNIT	PAPER NUMBER
			1791	
			MAIL DATE	DELIVERY MODE
			03/02/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/552,086

Applicant(s)

BUETTNER ET AL.

Examiner

ANTHONY J. CALANDRA

Art Unit

1791

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 December 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-20 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SE/US)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. In the response to the restriction dated 11/10/2008 the applicant elected group II with traverse.
2. The basis for traverse is that the prior art cited, DE 10140772, does not show a lack of unity *a posteriori* as the art does not teach or suggest the common technical feature of a *weakly-crossed linked cation exchanger*.

The examiner finds this argument convincing. The cited prior art only teaches ion exchangers and does not disclose that the ion exchangers are weakly linked. For this reason the examiner has withdrawn the lack of unity restriction based on DE 10140772. However, upon further review the examiner has found new references which teach the special technical feature as described by the applicant.

Election/Restrictions

3. Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 1-13, and 18-20 are drawn to a method and product of a cellulosic form with a weakly linked cation-exchange resin.

Group II, claim(s) 14-17 drawn to a method and product of a lyocell form with a weakly linked cation-exchange resin.

4. The inventions listed as Groups I and II do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: Groups I and II lack *unity a priori*. Instant claim 17, the method of making a lyocell fiber fails to say that it has a weakly linked cationic material.

Groups I and II additionally lack *unity a posteriori*. The special technical feature of a weakly linked cationic exchanger, cellulose, and metal ions are found in U.S. Patent 6,660,903 CHEN et al., hereinafter CHEN as evidenced by U.S. Patent 5,853,867 HARADA et al, hereinafter HARADA.

CHEN discloses a cellulose form [abstract] with cationic super-absorbent polymers [column 22 lines 40-54]. CHEN discloses that these super-absorbent polymers are prepared to prevent bacterial growth [column 22 lines 54-57] and discloses that the cationic polymers to be used are those from, U.S. Patent 5,853,867, HARADA et al. HARADA discloses that the cross linking agents are present from 0.01-2% by weight [column 5 lines 58-64], which overlaps with the range of instant claim 14. As the cationic polymers of CHEN have the same amount of cross-linking agent it is the examiners position that the fibers of CHEN containing a super-absorbent cationic polymer are weakly cross-linked. CHEN further discloses silver and other antibacterial agents added to the cellulosic form [column 21 lines 48-65]. Thus, CHEN teaches weakly cationic polymers, cellulose, and silver ions. Therefore the instant invention lacks *unity a posteriori*.

The special technical features of a weakly linked cationic exchanger, cellulose, and metal ions are found also in US 2004/0178142 KOSLOW. KOSLOW, discloses cellulosic fibers [abstract] with silver ions [0044], and cationic polymers [0017]. KOSLOW discloses that the

cationic material is cross-linked [0044]. It is well known in the art that low cross linking increases absorbency as evidenced by U.S. Patent 6,288,158 SCHAPOWALOV [column 1 lines 25-52] or U.S. Patent 6,110,533 COTE [column 2 lines 5-21]. Both patents disclose that weak cross-linking increases absorbency of polymeric materials. Therefore at the time of the invention it would have been obvious to a person of ordinary skill in the art to optimize the cross-linking the cationic polymer of KOSLOW. Thus, KOSLOW teaches or suggests weakly cationic polymers, cellulose, and silver ions. Therefore the instant invention lacks *unity a posteriori*.

Examiner did not initiate a telephone restriction as the applicant has previously requested that a requirement for restriction be written.

Applicant is advised that the reply to this requirement to be complete must include (i) an election of a species or invention to be examined even though the requirement may be traversed (37 CFR 1.143) and (ii) identification of the claims encompassing the elected invention.

The election of an invention or species may be made with or without traverse. To preserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANTHONY J. CALANDRA whose telephone number is (571) 270-5124. The examiner can normally be reached on Monday through Thursday, 7:30 AM-5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on (571) 272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/AJC/

/Eric Hug/
Primary Examiner, Art Unit 1791